



10-50-03

Docket No. 7135/CMP/ECP/RKK

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Re: Inventor(s): Mei Wen, Roman Mostovoy, Glen Mori and Harald Herchen  
Title: METAL DEPOSITION PROCESS WITH PRE-CLEANING BEFORE ELECTROCHEMICAL DEPOSITION  
Serial No.: 10/676,208  
Filed: October 1, 2003

Transmitted herewith is:

- ☒ Information Disclosure Statement  
☒ PTO Form 1449 with thirty-five cited references  
☒ Return Postcards

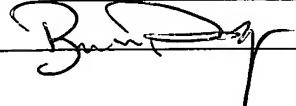
FEE CALCULATION					
Fee Items	Claims Filed	Included With Basic Fee	Extra Claims	Fee Rate	Total
Total Claims	N/A	- 20 =	-0-	X \$18.00	\$0.00
Independent Claims	N/A	- 3 =	-0-	X \$84.00	\$0.00
Basic Filing Fee				\$740.00	\$0.00
TOTAL FEES					\$0.00

- ☐ The Commissioner is hereby authorized to charge \$0.00 to Deposit Account No. 04-1696.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 04-1696. A duplicate copy of this transmittal is enclosed.
- ☒ Please address all future correspondence to:
- PATENT COUNSEL  
APPLIED MATERIALS, INC.  
Legal Affairs Department  
P.O.BOX 450A  
Santa Clara, CA. 95052**

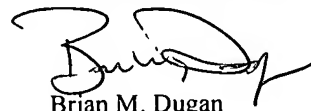
I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Express Mail Receipt No. EL975549325US

Date of Deposit: October 29, 2003

Signature: 

Respectfully submitted,

  
Brian M. Dugan  
Registration No. 41,720  
(914) 332-9081



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PATENTS  
7135/CMP/ECP/RKK

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Mei Wen, Roman Mostovoy, Glen Mori and Harald Herchen  
Serial No. : 10/676,208  
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Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97, applicants wish to call the attention of the Examiner to the following references:

U.S. Patent No. 5,030,319, Nishino et al.  
U.S. Patent No. 5,503,878, Suzuki et al.  
U.S. Patent No. 5,814,157, Mizuniwa et al.  
U.S. Patent No. 5,968,279, MacLeish et al.  
U.S. Patent No. 5,992,729, Koopman et al.  
U.S. Patent No. 5,994,240, Thakur  
U.S. Patent No. 5,996,594, Roy et al.  
U.S. Patent No. 6,033,584, Ngo et al.

U.S. Patent No. 6,040,021, Miyamoto  
U.S. Patent No. 6,107,192, Subrahmanyam et al.  
U.S. Patent No. 6,117,570, Chen et al.  
U.S. Patent No. 6,132,564, Licata  
U.S. Patent No. 6,277,749 B1, Funabashi  
U.S. Patent No. 6,284,649 B1, Miyamoto  
U.S. Patent No. 6,319,616 B1, Lopatin et al.  
U.S. Patent No. 6,319,728 B1, Bhan et al.  
U.S. Patent No. 6,346,489 B1, Cohen et al.  
U.S. Patent No. 6,395,642 B1, Liu et al.  
U.S. Patent No. 6,420,261 B2, Kudo  
U.S. Patent No. 6,582,578, B1 Dordi et al.  
U.S. Patent No. 6,613,663 B2, Furuya  
U.S. Patent No. 5,932,022, Linn et al.  
Foreign Art Reference No. JP04131395 A (Japan)  
Foreign Art Reference No. JP2000208444 A (Japan)  
Foreign Art Reference No. WO 97/15173 (WIPO)  
Foreign Art Reference No. WO 02/45155 A2 (WIPO)  
Foreign Art Reference No. WO 02/068727 A2 (WIPO)  
Foreign Art Reference No. WO 03/005437 A2 (WIPO)  
U.S. Patent Application No. US 2002/0088713 A1,  
Pub. Date: July 11, 2002  
U.S. Patent Application No. US 2002/0001860 A1,  
Pub. Date: January 3, 2002

U.S. Patent Application No. US 2002/0011415 A1,

Pub. Date: January 31, 2002

U.S. Patent Application No. US 2002/0076929 A1,

Pub. Date: June 20, 2002

U.S. Patent Application No. US 2002/0134684 A1,

Pub. Date: September 26, 2002

U.S. Patent Application No. US 2003/0176064 A1,

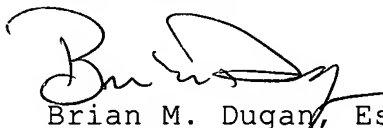
Pub. Date: September 18, 2003

Lu, et al., Understanding and Eliminating Defects in  
Electroplated Cu Films, 2001, pgs. 280-282

These references are also listed on the accompanying  
Information Disclosure Statement (Form PTO-1449) and copies are  
enclosed.

Consideration of the foregoing in relation to this  
patent application is respectfully requested.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Brian M. Dugan", is written over the typed name.

Brian M. Dugan, Esq.  
Registration No. 41,720  
Dugan & Dugan, PC  
Attorneys for Applicants  
(914)332-9081

Dated:       October 29, 2003  
              Tarrytown, New York

U.S. Department of Commerce, Patent and Trademark Office

Docket No.:

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10/676,208

## LIST OF RELEVANT ART CITED BY APPLICANT

(Use several sheets if necessary)

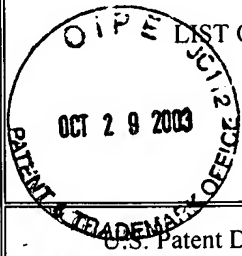
Applicant(s):

Mei Wen et al.

Filing Date:

10/01/03

Group:



## U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,030,319	07/09/91	Nishino et al.			
	AB	5,503,878	04/02/96	Suzuki et al.			
	AC	5,814,157	09/29/98	Mizuniwa et al.			
	AD	5,968,279	10/19/99	MacLeish et al.			
	AE	5,992,729	11/30/99	Koopman et al.			
	AF	5,994,240	11/30/99	Thakur			
	AG	5,996,594	12/07/99	Roy et al.			
	AH	6,033,584	03/07/00	Ngo et al.			
	AI	6,040,021	03/21/00	Miyamoto			
	AJ	6,107,192	08/22/00	Subrahmanyam et al.			
	AK	6,117,570	09/12/00	Chen et al.			

## Foreign Patent Documents

## Translation

		Document Number	Date	Country	Class	Subclass	Yes	No
	AL	JP04131395 A	05/06/92	Japan			X abstract only	
	AM	JP2000208444 A	07/28/00	Japan			X abstract only	
	AN	WO 97/15173	04/24/97	WIPO				
	AO	WO 02/45155 A2	06/06/02	WIPO				
	AP	WO 02/068727 A2	09/06/02	WIPO				

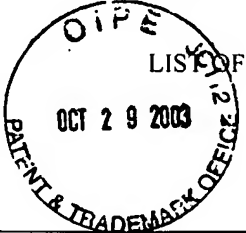
## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	U.S. Patent Application No. US 2002/0088713 A1, Pub. Date: July 11, 2002
	AS	U.S. Patent Application No. US 2002/0001860 A1, Pub. Date: January 3, 2002
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Examiner

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office 					Docket No.: 7135/CMP/ECP/RKK		Serial No.: 10/676,208	
LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary)					Applicants: Mei Wen, et al			
					Filing Date: October 1, 2003		Group: _____	

U.S. Patent Documents							
*Examiner Initial	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate	
	AA	6,132,564	Licata				
	AB	6,277,749 B1	Funabashi				
	AC	6,284,649 B1	Miyamoto				
	AD	6,319,616 B1	Lopatin et al.				
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	AG	6,395,642 B1	Liu et al.				
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AT	U.S. Patent Application No. US 2003/0176064 A1, Pub. Date: September 18, 2003
AU	Lu, et al., Understanding and Eliminating Defects in Electroplated Cu Films, 2001, pgs. 280-282

Examiner	Date Considered
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